

FIG. 1(A)
(PRIOR ART)

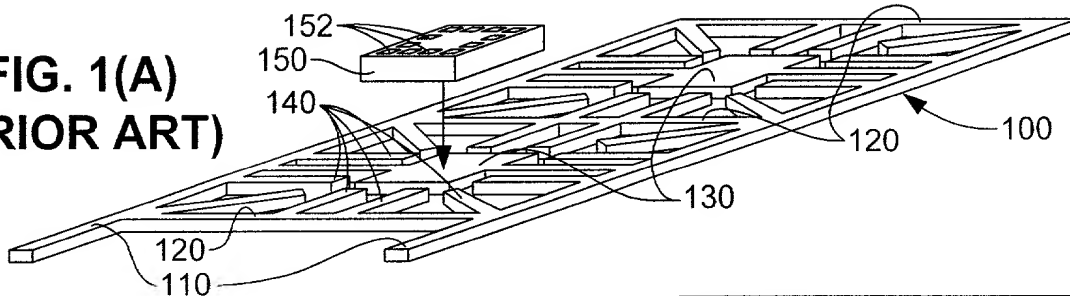


FIG. 1(B)
(PRIOR ART)

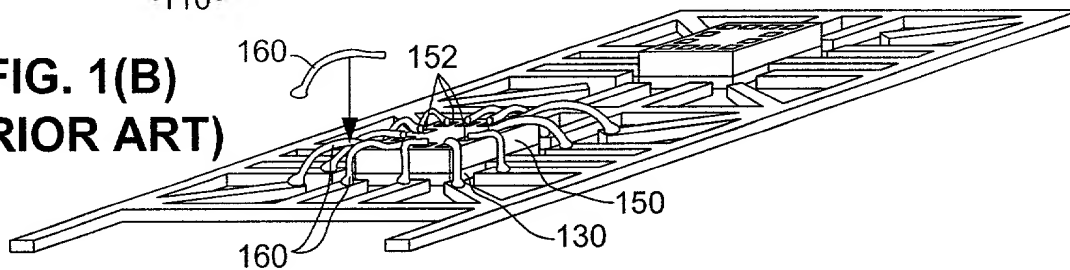


FIG. 1(C)
(PRIOR ART)

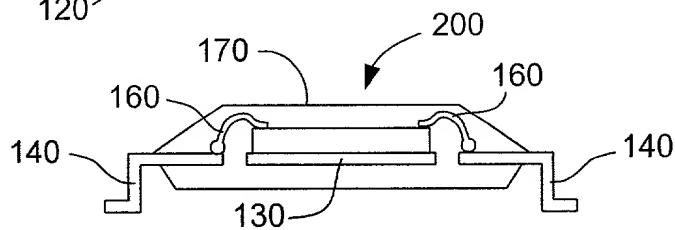
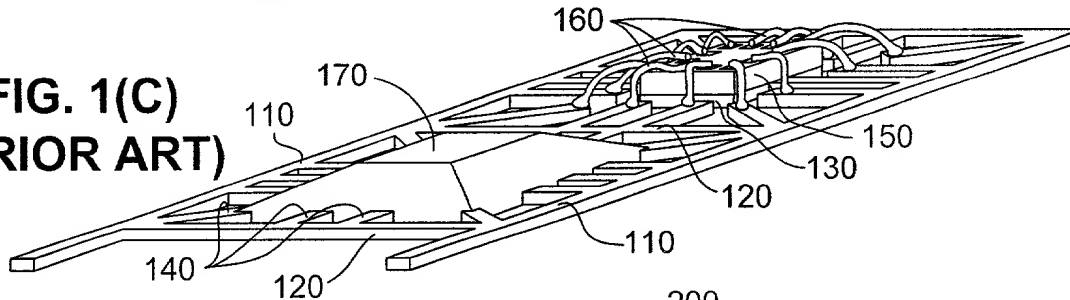


FIG. 2 (PRIOR ART)

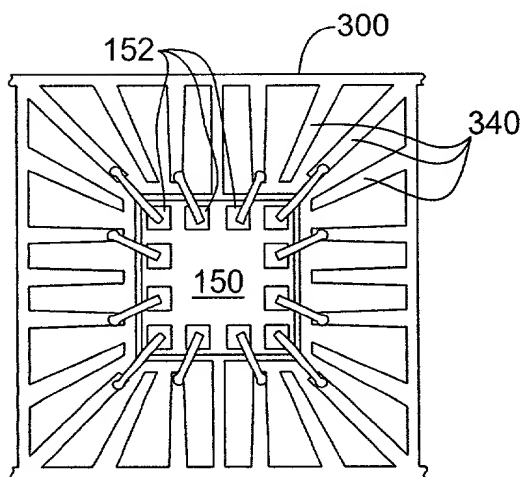


FIG. 3(A)
(PRIOR ART)

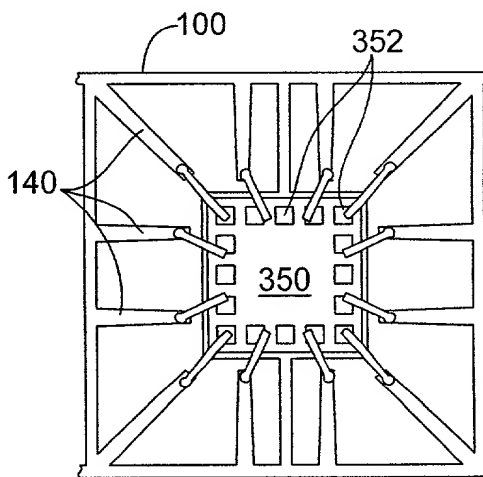


FIG. 3(B)
(PRIOR ART)

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graph TD
    510[STORE LEAD FRAME IMAGE] --> 512{LEAD FRAME DETECTED?}
    512 -- NO --> 512
    512 -- YES --> 514[CAPTURE LEAD FRAME IMAGE]
    514 --> 516[COMPARE CAPTURED AND STORED LEAD FRAME IMAGES]
    516 --> 518{MATCH?}
    518 -- YES --> 530[TERMINATE BONDING PROCESS]
    518 -- NO --> 512
    520[STORE DIE IMAGE] --> 522{DIE DETECTED?}
    522 -- NO --> 522
    522 -- YES --> 524[CAPTURE DIE IMAGE]
    524 --> 526[COMPARE CAPTURED AND STORED DIE IMAGES]
    526 --> 528{MATCH?}
    528 -- YES --> 530
    528 -- NO --> 522
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Flowchart 500 illustrates the process of capturing and comparing lead frame and die images. The process starts with two parallel steps: 510 (STORE LEAD FRAME IMAGE) and 520 (STORE DIE IMAGE). Both steps lead to decision diamonds: 512 (LEAD FRAME DETECTED?) and 522 (DIE DETECTED?). If either is detected (YES), the process proceeds to capture the image (514 for lead frame, 524 for die) and then compare it with the stored image (516 for lead frame, 526 for die). The comparison results are checked in decision diamonds 518 (MATCH?) and 528 (MATCH?). If both match (YES), the process terminates at 530 (TERMINATE BONDING PROCESS). If either does not match (NO), the process loops back to the detection step (512 or 522).

FIG. 5

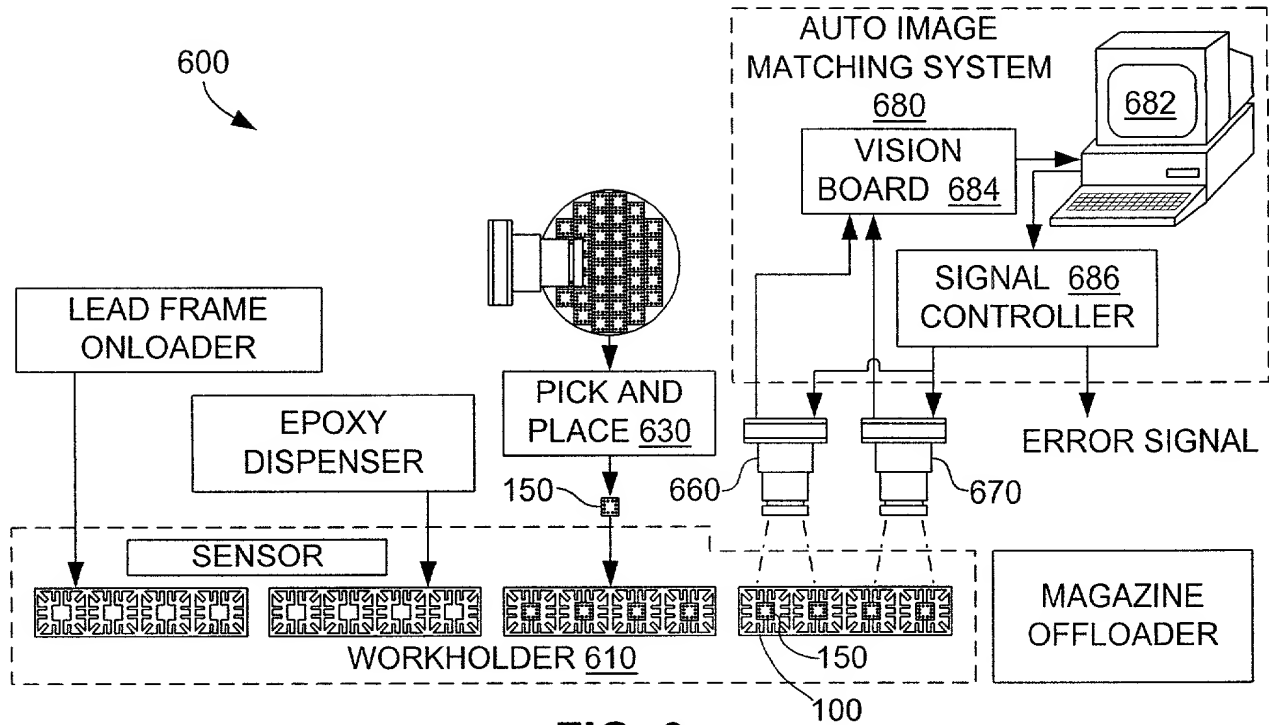


FIG. 6

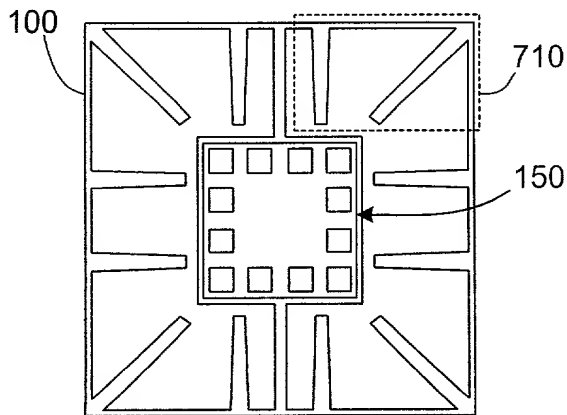


FIG. 7(A)

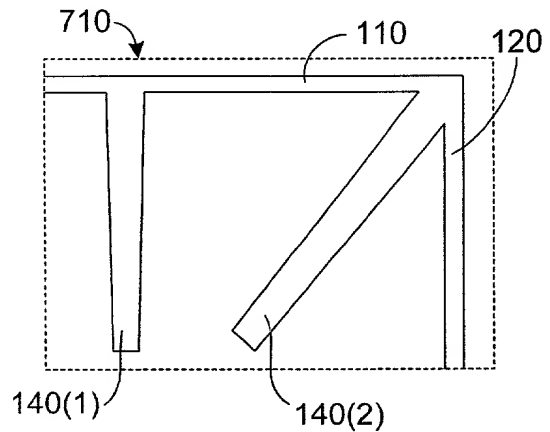


FIG. 7(B)

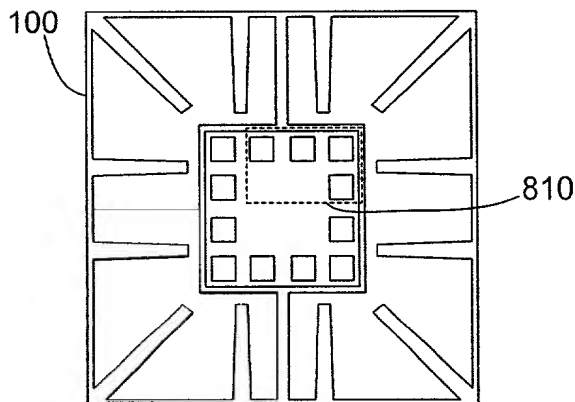


FIG. 8(A)

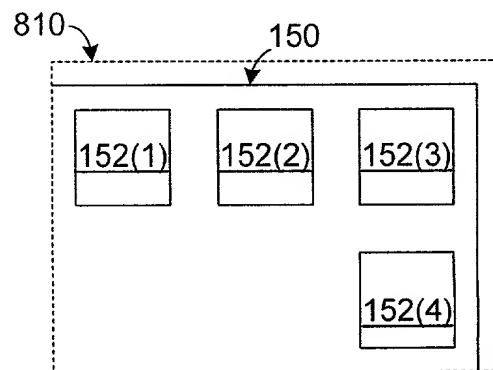


FIG. 8(B)